

S/K CHALLENGE II

S/K Challenge Final Execution

Presented by
Brief
CPT Michael Stewart, Deputy Grogan, & Adam
Rogers

02 MARCH 2015

DUGWAY PROVING
GROUND

P R E S E N T S

S/K CHALLENGE



S/K II Challenge Agenda

- Key Dates
- Event List
- VIP Day
- Lodging
- Point of Contact Information



Unclassified



S/K II Challenge Key Dates

MAR – 31st Deadline for funding and Reregistration

APR – 30th VIP Initial List
Foreign Visitors List
Customer List Due

MAY – 5th Final Meeting with Customers(Admin and Logistic focused)



Unclassified



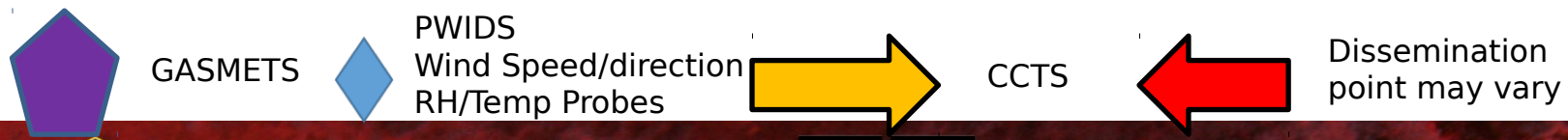
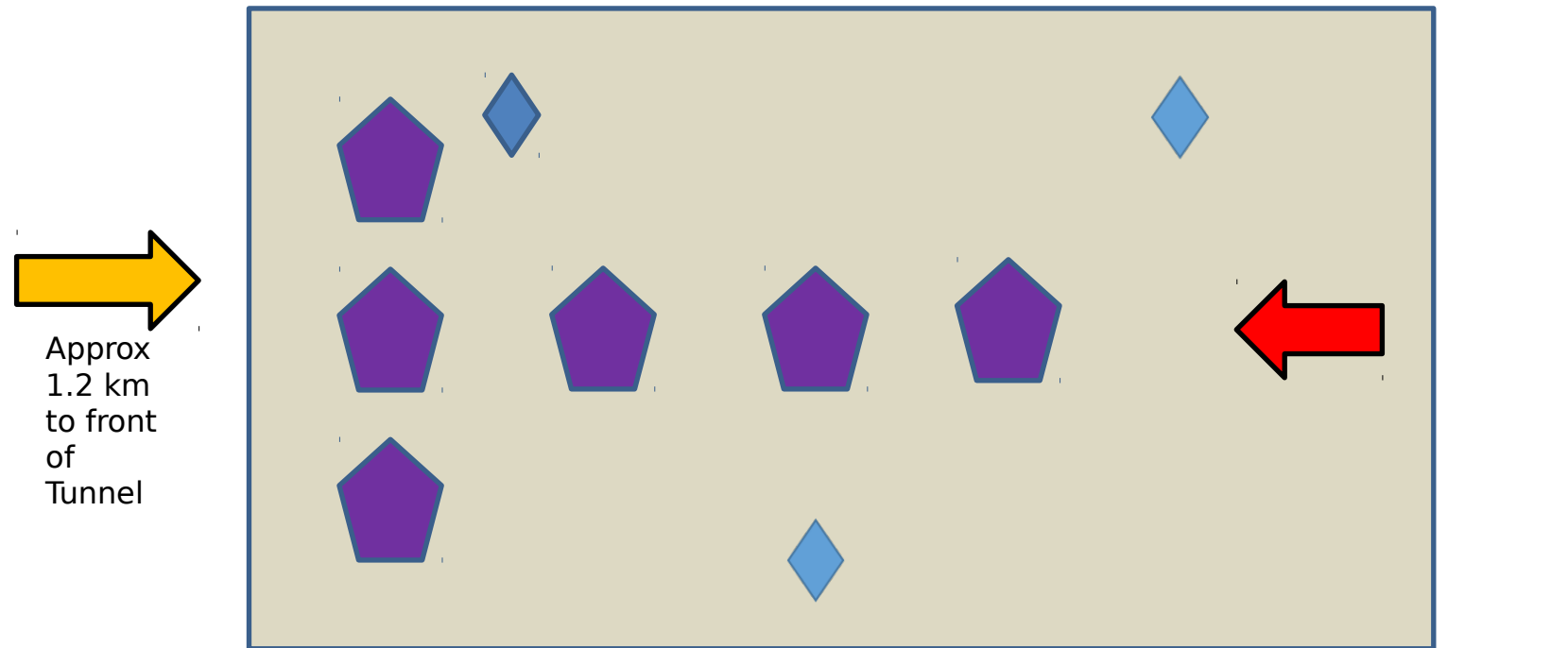
DATA MATRIX 01-02 June

ASC Bio				
Run	Night	Compound	Concentration	RH
1	1	BG	Low	Ambient
2	1	BG	High	Ambient
3	1	OV	Low	Ambient
4	1	OV	High	Ambient
5	1	EH	Low	Ambient
6	1	EH	High	Ambient
7	1	MS2	Low	High
8	1	MS2	High	High
9	1	OV	Low	High
10	1	OV	High	High
11	2	MS2	Low	Ambient
12	2	MS2	High	Ambient
13	2	EH	Low	Ambient
14	2	EH	High	Ambient
15	2	OV	Low	Ambient
16	2	OV	High	Ambient
17	2	BG	Low	High
18	2	BG	High	High
19	2	EH	Low	High
20	2	EH	High	High

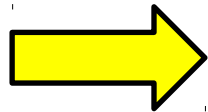
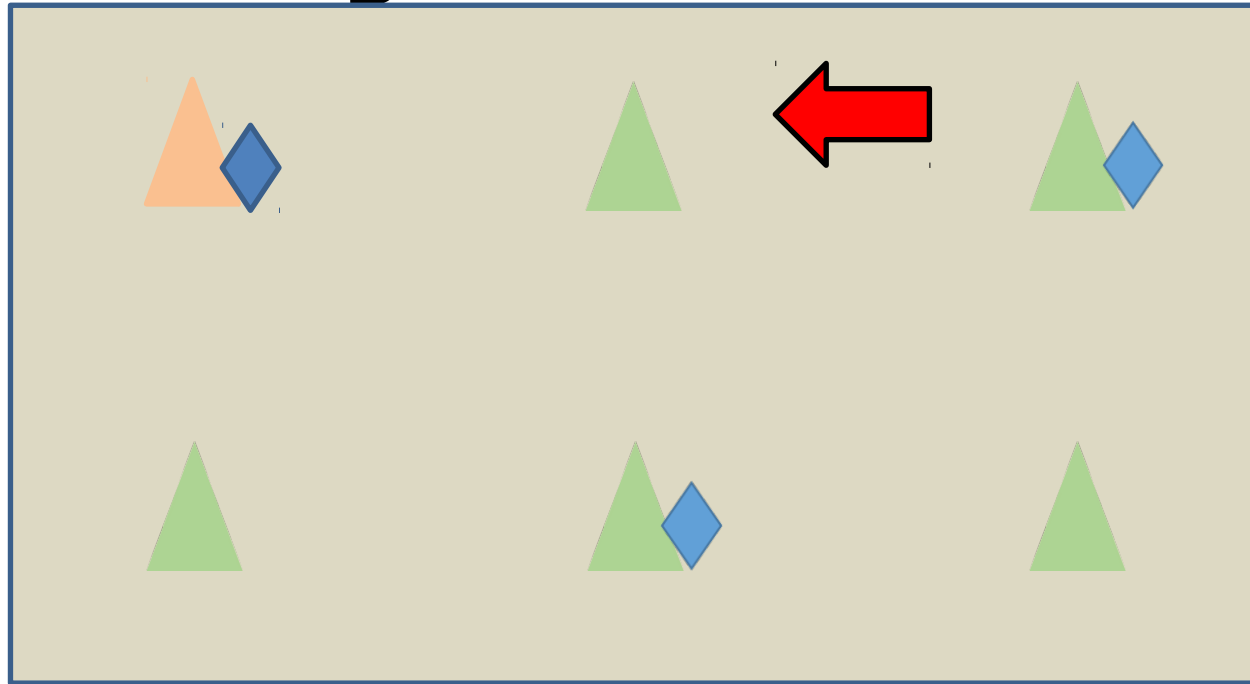
JABT Chem				
Run	Night	Compound	Concentration	Air Speed
1	1	MeS	Low	Low
2	1	MeS	High	High
3	1	MeS	Low	High
4	1	MeS	High	Low
5	1	SF6	Low	Low
6	1	SF6	High	High
7	1	SF6	Low	High
8	1	SF6	High	Low
9	1	MeS	Low	Mid
10	1	MeS	High	Mid
11	2	SF6	Low	Low
12	2	SF6	High	High
13	2	MeS	Low	High
14	2	MeS	High	Low
15	2	TEP	Low	Mid
16	2	TEP	High	Mid
17	2	TEP	Low	Low
18	2	TEP	High	High
19	2	TEP	Low	High
20	2	TEP	High	Low



Joint Ambient Breeze Tunnel Chemical Referee Array



Active Standoff Chamber Biological Referee Array



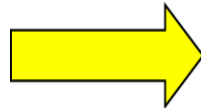
Approx
1 km to
front of
Tunnel



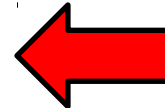
Aerosol
Particle
Sizers



Humidit
y and
RH
probes



West
Desert
LIDAR



Dissemination
point may vary



DATA MATRIX 04-05 June

ASC Chem

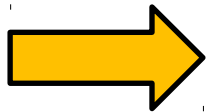
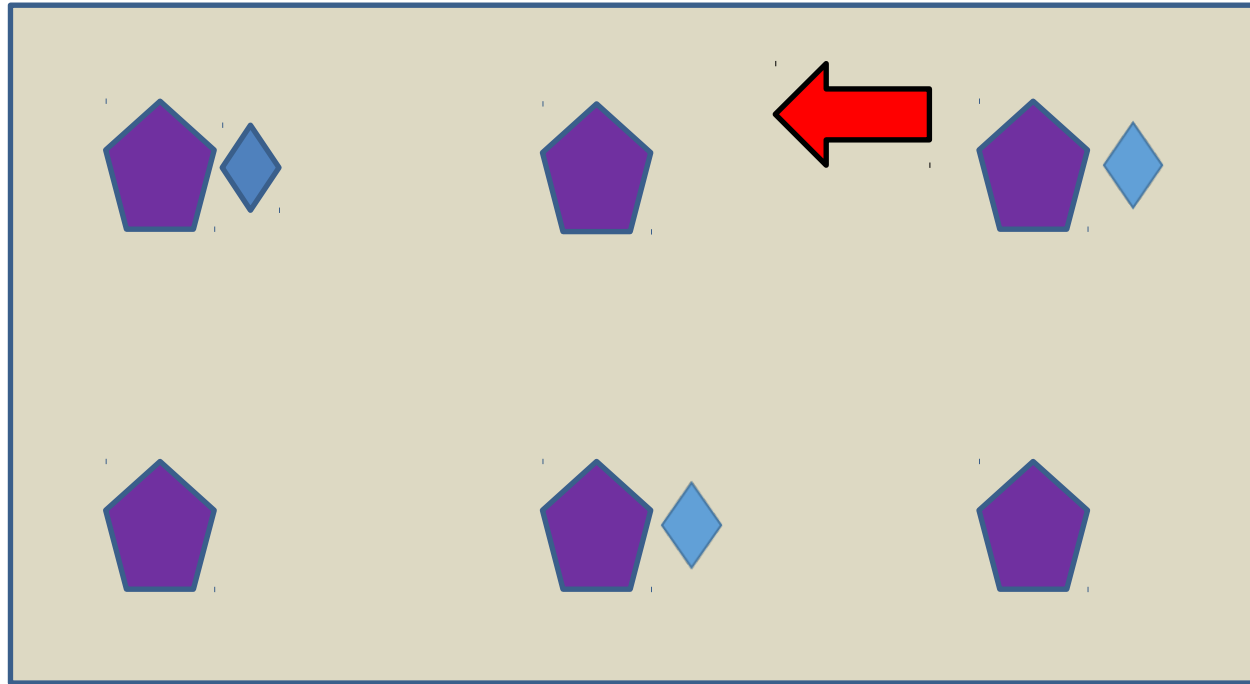
Run	Night	Compound*	Concentration	RH
1	1	MeS	Low	Ambient
2	1	MeS	High	Ambient
3	1	MeS	Low	Ambient
4	1	MeS	High	Ambient
5	1	SF6	Low	Ambient
6	1	SF6	High	Ambient
7	1	SF6	Low	High
8	1	SF6	High	High
9	1	MeS	Low	High
10	1	MeS	High	High
11	2	SF6	Low	Ambient
12	2	SF6	High	Ambient
13	2	MeS	Low	Ambient
14	2	MeS	High	Ambient
15	2	TEP	Low	Ambient
16	2	TEP	High	Ambient
17	2	TEP	Low	High
18	2	TEP	High	High
19	2	TEP	Low	High
20	2	TEP	High	High

JABT Bio

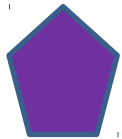
Run	Night	Compound	Concentration	Air Speed
1	1	BG	Low	Low
2	1	BG	High	High
3	1	OV	Low	High
4	1	OV	High	Low
5	1	EH	Low	Low
6	1	EH	High	High
7	1	MS2	Low	High
8	1	MS2	High	Low
9	1	BG	Low	Mid
10	1	BG	High	Mid
11	2	MS2	Low	Low
12	2	MS2	High	High
13	2	EH	Low	High
14	2	EH	High	Low
15	2	OV	Low	Mid
16	2	OV	High	Mid
17	2	BG	Low	High
18	2	BG	High	Low
19	2	EH	Low	High
20	2	EH	High	Low



Active Standoff Chamber Chemical Referee Array



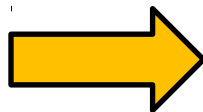
Approx 1
km to front
of Tunnel



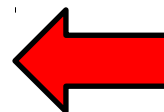
GASMETS



Humidity
and
RH
probes



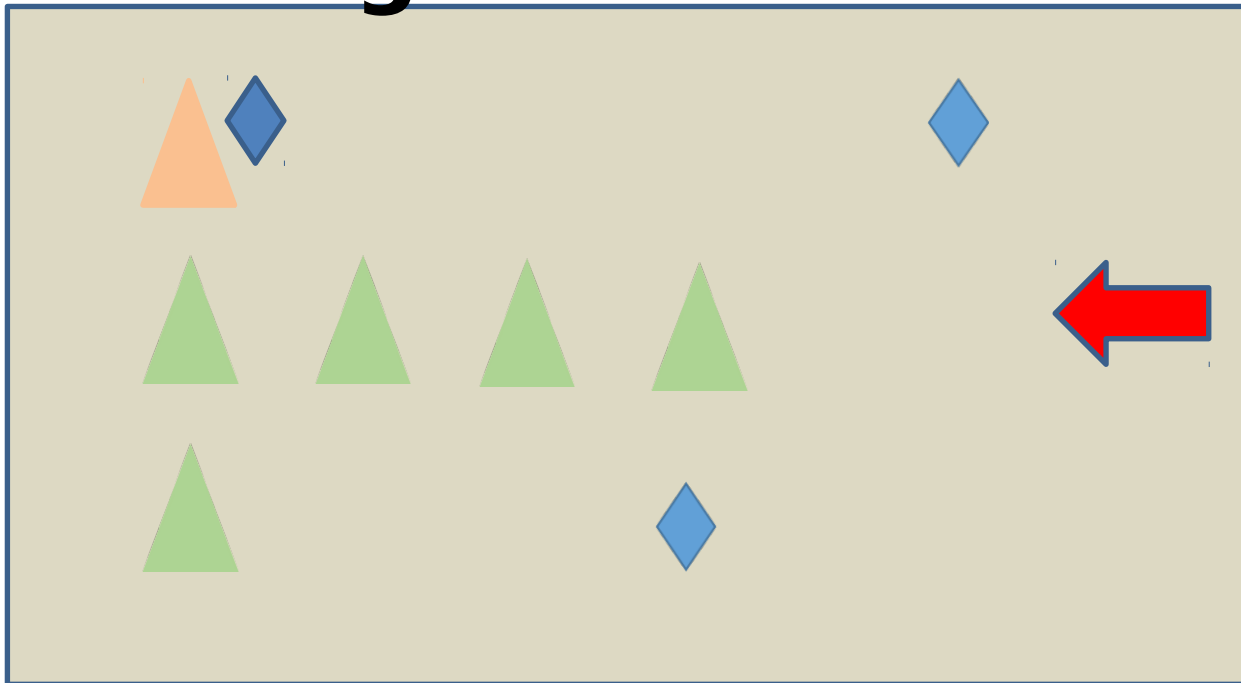
CCTS




Dissemination
point may vary

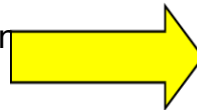


Joint Ambient Breeze Tunnel Biological Referee Array



 Aerosol Particle Sizers

 PWIDS Wind Speed/direction RH/Temp Probes



West Desert LIDAR



Dissemination Point



Test Matrix 08 June

Test Day	Event	Material	Dissemination Method	Interferent
08 June	VT-1	MeS	Explosive/20gals	
	VT-2A	OV	Skill Blower/500g	
	VT-3A	TEP	9200/20L	
	VT-2B	BG	Skill Blower/500g	
	VT-4A	TEP	LVAD/3kg	
	VT-3B	EH	Micronair/20L	
	VT-4B	BG/OV	AirCannon/500g	
	VT-5A	AA	Explosive/20gal	
	VT-5B	MS2	Micronair/20L	
	VT-6A	SF6	Explosive/1 min	
	VT-6B	TEP/EH	Mirconair or 9200/20L	

Black are planned trials and Red are bonus trials.



Test Matrix 09 June

Test Day	Event	Material	Dissemination Method	Interferent
09 June	VT-1	MeS	Explosive/20gals	Burning Brush
	VT-2A	OV	Skill Blower/500g	Road Dust
	VT-2B	BG	Skill Blower/500g	Road Dust
	VT-3A	TEP	9200/20L	Burning Tires
	VT-3B	EH	Micronair/20L	Burning Tires
	VT-4A	TEP	LVAD/3kg	Dust
	VT-4B	BG/OV	AirCannon/500g	
	VT-5A	AA	Explosive/20gal	
	VT-5B	MS2	Micronair/20L	
	VT-6A	SF6	Explosive/1 min	
	VT-6B	TEP/EH	Mirconair or 9200/20L	

Black are planned trials and Red are bonus trials.



Test Matrix 10 June

Test Day	Event	Material	Dissemination Method	Interferent
10 June	VT-4B	BG/OV	AirCannon/500g	
	VT-5A	AA	Explosive/20gal	
	VT-5B	MS2	Micronair/20L	
	VT-6A	SF6	Explosive/1 min	
	VT-6B	TEP/EH	Mirconair or 9200/20L	
	VT-1	MeS	Explosive/20gals	
	VT-2A	OV	Skill Blower/500g	
	VT-2B	BG	Skill Blower/500g	
	VT-3A	TEP	9200/20L	
	VT-3B	EH	Micronair/20L	
	VT-4A	TEP	LVAD/3kg	

Black are planned trials and Red are bonus trials.

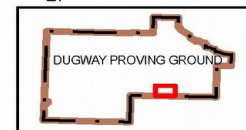


Test Matrix 11 June

Test Day	Event	Material	Dissemination Method	Interferent
10 June	VT-4B	BG/OV	AirCannon/500g	Burning Brush
	VT-5A	AA	Explosive/20gal	Road Dust
	VT-5B	MS2	Micronair/20L	Burning Tires
	VT-6A	SF6	Explosive/1 min	Dust
	VT-6B	TEP/EH	Mirconair or 9200/20L	
	VT-1	MeS	Explosive/20gals	
	VT-2A	OV	Skill Blower/500g	
	VT-2B	BG	Skill Blower/500g	
	VT-3A	TEP	9200/20L	
	VT-3B	EH	Micronair/20L	
	VT-4A	TEP	LVAD/3kg	

Black are planned trials and Red are bonus trials.





VIP DAY

0900 - 0930 In brief English Village

0930 -1000 Travel to Chem Lab

1000 - 1045 Chem Lab Tour

1045 - 1100 Travel to MAAF

1100 - 1130 MAAF Tour

1145 - 1200 Travel to Ditto Diner

1200 - 1300 Lunch (Not Provided)

1300 - 1330 Travel to Life Science

1330 - 1415 Life Science Tour

1415 - 1430 Travel to Mustang Village

1430 - 1445 Restroom Break

1445 - 1515 Mustang Village Tour

1515 - 1600 Demonstrations

1600 - 1630 Awards Presentation

1630 - 1730 Dinner Mustang Village

1730 - 1930 Customer & DPG Presentations

1930 - 2015 Travel to Hotel



S/K II Challenge Package

- \$25,000 for Participation Fee
 - Data package
 - Up to 7 personnel and one system (Can bring multiple systems, additional logistics fees may apply)
 - VIP Day Access
 - Logistic Support
 - Vendor Demonstration Day
 - Exposure to Chem & Bio simulants
- \$1,500 Observer Fee
 - Per Individual



Unclassified



S/K Challenge Fee

Non US Government Customers: Please send payment via check made out to 'Department of Treasury' and mailed to DPG at the following:

U.S. Army Dugway Proving Ground
WDTC Resource Management Office
ATTN: Cynthia Rowe or Angie Child
Building 4531 (Kuddes), B-Street Room 140
Dugway, UT 84022-5000

DPG Resource Management Budget
POC:
Cynthia Rowe
Cynthia.a.rowe4.civ@mail.mil
COMM: (435) 831-3749, DSN 789-3749
FAX: (435) 831-5183, DSN 789-5183

DPG Resource Management Budget
POC:
Angela Child
Angela.l.child.civ@mail.mil
COMM: (435) 831-3785, DSN 789-3785
FAX: (435) 831-5183, DSN 789-5183

Government customers: Please make sure the following statement is on the MIPR: Issued as a reimbursable economy act service order IAW DFAS-IN 37-1, Chapter 12 and 31 U.S.C 1535 or issued as a reimbursable project order IAW DFAS-IN 37-1, Chapter 12 and 41 U.S.C 23. Please include the project number 2013-DT-DPG-TRDSP-F7220

41



S/K Challenge Events List

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	25 May	26	27	28	29	30
		DPG Set Up				
31	01 June	02	03	04	05	06
	SK II Field Chambers	JABT/ ASC	Set Up	SK II Field Chambers	JABT/ ASC	
	Set-Up		Vendor Day			
07	08	09	10	11	12	13
	SK II Field				Retro	
	Set Up		VIP DAY			
14	15	16	17	18	19	20
21	22	23	24	25	26	27



Unclassified



POC

Project Team

Phone: 001-435-831-5442

email: usarmy.dpg.attec.mbx.sk-challenge@mail.mil

webpage: www.wdtdc.army.mil



Unclassified



Questions



Unclassified



S/K Challenge II

1-11 June
2015

DUGWAY PROVING
GROUND

P R E S E N T S

S/K CHALLENGE



Back Up Slides



S/K II Challenge Schedule

- **Meeting Dates**

4th Meeting 5th May

- **Execution**

JABT & ASC

01- 04 June

Field Test

08- 11 June

- **Reporting**

Final Review

10 July 15

Future Improvements

15 July 15

Data package delivery

15 July 15

- **Future Efforts**

S/K Challenge III

TBD



Unclassified





Lodging

- To register by phone, call 001- (435) 831-6500
- For more information email:
tonya.wintle@ihg.com
kathryn.metcalfe@ihg.com
- Or visit www.ihgarmyhotels.com
- Tooele – 40+ mile drive
- Salt Lake City Airport – 80+ mile drive
- All FN work lodging through Megan Holste
POC information 001-703-545-1081 or email:
megan.j.holste.civ@mail.mil



Unclassified



S/K II Challenge Scope

S/K Challenge is an OSD effort to collaborate and reduce costs of equipment testing. The annual event allows groups to utilize Dugway Proving Ground, UT test facilities to demonstrate and collect data on their equipment and processes in a more economical environment. This effort helps support initial entry and cost prohibition that sometimes stalls new technologies.

S/K Challenge II provides the opportunity to demonstrate your chemical and biological equipment during a two week event. This year Dugway Proving Grounds will be incorporating outdoor chambers and field scenarios during the informal non-acquisition demonstration. We will be demonstrating outdoor chamber testing using the Joint Ambient Breeze Tunnel (JABT) and Active Standoff Chamber (ASC) providing customers with variety of chemical & biological challenges. We will follow up the event with a field demonstration applying real world scenarios allowing customer to evaluate their equipment in a realistic environment. Customers will have the opportunity to meet with industry, international, and government organizations during the VIP Day and throughout the event.



Unclassified



S/K Challenge Events List

01 June Set Up & Pilot Test

1530 – 1600 Movement to JABT & ASC

1600 – 1630 Safety Brief

1630 - 2030 Setup JABT & ASC

2030 – 2100 Daily Activity Meeting

2100 – 0230 Pilot Test

0230 – 0330 Shutdown



Unclassified



S/K Challenge Events List

02 June

1500 – 1700 Chem Lab & MAAF tour

1700 – 1800 Dinner (Not Provided)

1900 – 2000 Movement to JABT & ASC

2000 – 2030 Safety Brief

2030 – 2100 Daily Activities Brief

2100 – 0400 Testing

0400 – 0500 Shutdown



S/K Challenge Events List

03 June Vendor Presentation Day & Set Up

1400 – 1530 Life Science & Mustang Village

1600 - 1700 Dinner (Provided)

1730 – 2030 Vendor Presentation

2030 – 2130 JABT & ASC Set Up

2130 – 2200 Safety/ Daily Activities

2300 – 0200 Pilot Test & Shutdown



Unclassified



S/K Challenge Events List

04 & 05 June Test

1900 – 2000 Movement to JABT & ASC

2000 – 2030 Safety Brief

2030 – 2100 Daily Activities Brief

2100 – 0400 Testing

0400 – 0500 Shutdown



Unclassified



S/K Challenge Events List

08 June Field Set Up and Test

1400 – 1500 Movement to Target S

1500 – 2000 Test Grid Setup/ Daily Activities

2030 – 2100 Safety Brief

2100 – 0100 Test

0100 – 0200 Shutdown

09 June Record Field Test

1900 – 2000 Movement to Target S

2000 – 2030 Daily Activities

2030 – 2100 Safety Brief

2100 – 0400 Test

0400 – 0500 Shutdown



Unclassified



S/K Challenge Events List

10 June "VIP Day" Schedule

0900 Arrival

0900 - 0930 In brief

0930 - 1200 Chem Lab/MAAF Tours

1200 - 1300 Lunch Ditto Diner

1300 - 1600 Life Science/ Mustang Village Tour

1630 - 1700 Command Presentations

1700 - 1745 Dinner on Target S (provided)

1745 - 1815 Demonstration

1815 - 2100 Scenario Driving Presentation 2100

Travel to hotel

10 June Field Set Up and Test

2100 - 2130 Daily Activities Brief

2130 - 2200 Safety Brief

2200 - 0400 Test

0400 - 0500 Shutdown



Unclassified



S/K Challenge Events List

11 June Record Test

1900 – 2000 Movement to Target S

2000 – 2030 Daily Activities

2030 – 2100 Safety Brief

2100 – 0400 Test

0400 – 0500 Shutdown



Unclassified



Trial Simulants

Simulants that will be used

- *Bacillus subtilis* var. niger (BG)
- *Erwinia herbicola* (EH)
- Male Specific Coliphage (MS2)
- Methyl Salicylate (MES)
- Ovalbumin (OV)
- Acetic Acid
- Triethyl Phosphate (TEP)
- Suflur Hexafluoride (SF6)
- *Other additional simulants*



Unclassified



Instrumentation

Aerosol

- APS
- LIDAR

Vapor

- GASMETS
- CCTS

Meteorological

- PWIDS
- MET Towers
- Hazard Models



Unclassified



Week 2 Field Planning 08 – 12 June

- Planning for 6 trials per night, weather dependent
- Customer awards will be handed out on VIP day
- Safety brief will be 30 minutes prior to testing



Week 1 JABT/ ASC Planned Trials 01-05 June

- We are planning 40 chem and 40 bio trials, weather dependent
- Bring food and beverages to testing
- Safety brief 30 minutes prior to testing
- 0700 6 June Saturday to 1400 08 June Monday free time

